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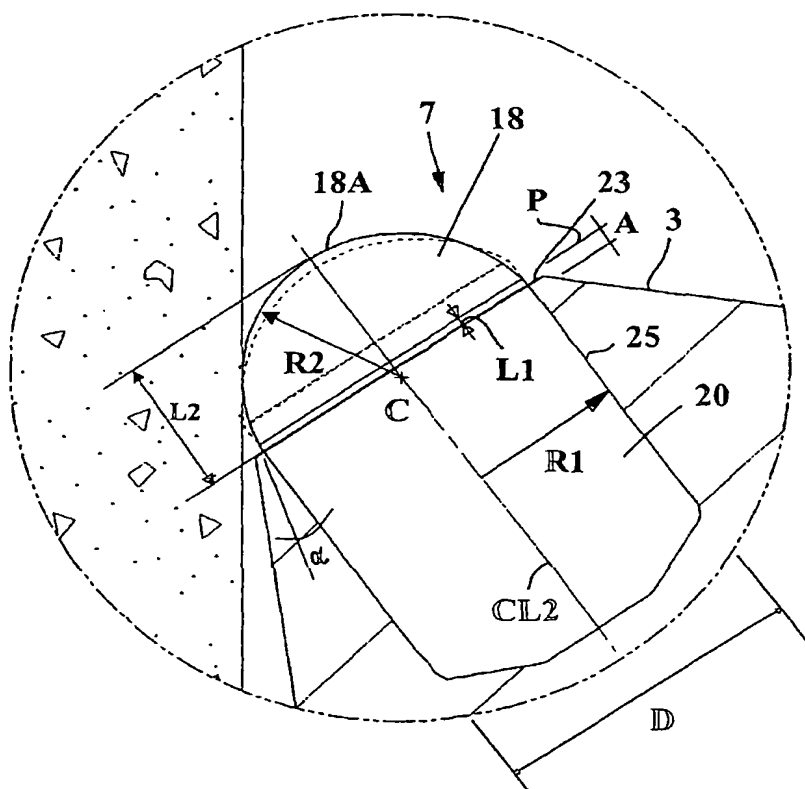
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- (75) Inventor/Applicant (*for US only*): BJÖRK, Fredrik [SE/SE]; Västanbygatan 18, S-811 32 Sandviken (SE). For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PERCUSSION DRILL BIT AND A BUTTON THEREFOR



(57) Abstract: A percussion drill bit for drilling a bore, comprising a drill body having a connecting section at a rear end thereof for connection to a percussive unit and defining a rotational axis (CL1) of the drill bit, and a plurality of cemented carbide buttons (7, 9, 10) embedded in a front end of the drill body. The front end being rigid with respect to the connecting section. Each button comprises a cemented carbide body having a rear mounting portion (20) embedded in the drill body, and a front end (18) protruding from the drill body. The front end of the cemented carbide button is substantially semi-spherically curved and defined by a radius (R2). An origin (C) of the radius is disposed axially rearwardly of a plane (P) defines the largest diameter (D) of the button. The button projects from the drill bit body a distance (L2), which is not less than 50 % of the button diameter (D). A conical intermediate surface (21) forms, in cross-section, an acute angle ( $\alpha$ ) of about 13-19° with the envelope surface (25) of the rear mounting portion (20). The present invention also relates to the button itself, i.e. a cemented carbide button for use in a percussive drill bit.

WO 03/085231 A1